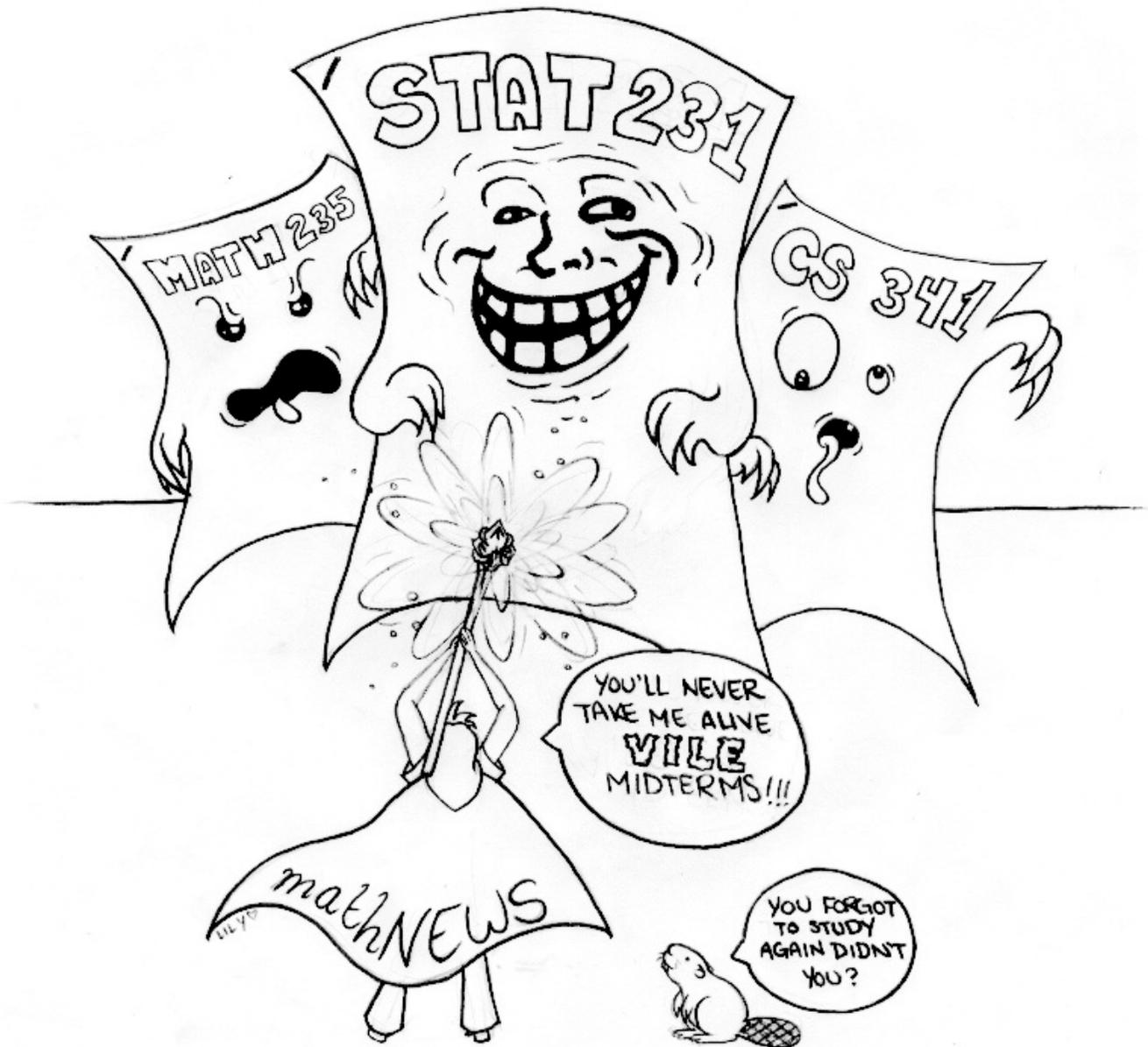


math NEWS



Volume 116, Issue 3
Friday, June 10th, 2011



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lookAHEAD**mathNEWS**

June 10	Issue #3 rampages through Tokyo
June 20	Issue #4 develops superpowers
June 24	Issue #4 battles issue #3 in an epic showdown between good and evil.

Math Faculty

June 13	Final day to apply for Black Tie for Orientation
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MathSoc

Tuesdays	Games Night in the Comfy at 6:30pm
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CECS

June 16	First round employer interviews end
June 17	First round rankings open
June 20	First round rankings close
June 22	Continuous Cycle begins

Misc

June 19	Father's day
June 26	GRT moves to summer schedule
July 1	Canada Day
July 10	Engineers learn to golf.

FedS Sez

Posted at feds.ca/fedhall is a form letter to the President of the University regarding the Fed Hall decision. MathSoc has recently passed a motion condemning the University's decision not to renew the Fed Hall lease next April, so we encourage all math students to either fill out the form letter or write one of your own and submit it through the site. This is the best method we have so far to let the University administration know how students feel. So please fill it out before this Sunday at 12:30pm!

The next students' council meeting is this Sunday (June 12th) at 12:30pm in the SLC Multipurpose Room. As always, all are welcome to attend!

Jesse McGinnis & Alex Russell
mathcouncillors@gmail.com

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The five senses that form the gelatinous mass that is *mathNEWS*: Sight (Will Morrison), Smell (Jeff Bain), Touch (Michelle Conway), Hearing, (Harrison Gross) and Taste (Sacha Koohgoli).

mastHEAD*Curse you, Midterms!*

As usually happens midway through the term, we lost some writers to the ever dreaded midterms. Obviously, *mathNEWS* needs something so awesome that even writers with midterms will still show up. Something to bring up our *mathNEWS* spirit. Perhaps... a rallying cry! I'm uncreative though, so it brings us to this week's *mastHEAD* question: "What should the *mathNEWS* rallying cry be?"

(define this (not cool)) ("I swear I'm in math!!!"), !able ("Kill me now"), Concealed ("65% more *mathNEWS* per *mathNEWS*"), Williver ("Too hard to be software!"), consumption creeper("PIZZAAAAA!!!!"), waldo@3.LE-GASP.ca ("HEELLLLLLLLLLOOOOOO DISTRACTIONS ^.^") BlueberryMuffin ("nyan nyan nyan nyan nyan nyan nyan nyan"), Zethar ("No shall pass!"), LISA ("worth getting dressed for!"), meaningless quips("We don't bite... hard..."), Pichaku ("DEMACIAAAAA!!!!"), ConED("We swear we're not crazy"), GroovyED("mathNEWS team, ASSEMBLE!"), !ED ("For truth, justice, and goodwill!)

Corrupted("I thought this would be less work!")

VPAS Sez

Hey there mathies! We have a lot of things coming up in the next few months, so get ready!

Cross-society blood drive: The societies are holding a blood drive competition! The idea is to encourage students to donate blood through a friendly competition. The blood drive will last 56 days from June 1st - July 26th. The month of June will focus on encouraging eligible students to take advantage of the permanent Canadian Blood Services clinic in Waterloo (at Weber and Bridgeport).

The month of July will focus on promoting the on-campus blood donor clinics scheduled for July 8th, 25th and 26th in the SLC. June 14th is international blood donor day so we'll be trying to do something special for that. CBS staff at both locations are aware of this competition and will record your faculty when you make a donation. At the end of the 56 days the faculty with the most donations will win (bragging rights, of course)! The societies will also contacting GLOW to invite discussion and action over some of the discriminatory aspects of blood donation in Canada, and the impact on our society. So, if you are able, we encourage you to consider donating blood - it only takes about a half hour of your time, and you could save 3 lives!

Joint semi-formal with AHS and Engineering: Friday, July 8th in South Campus Hall. 8pm - 2am. Tickets will be \$10 in advance and will be available soon! Stay tuned for more updates!

In more internal news, games nights are continuing to run every Tuesday night starting at 7pm in the Comfy or C&D, and our first karaoke night was this Thursday at 7pm in the Comfy. Karaoke nights, movie nights, and lots of other fun things will run every Thursday from now on. Keep an eye out for posters advertising next week's event, it'll be lots of fun and there will be food!

A final reminder to all math students to check out feds.ca/fedhall, where you can read up on the Fed Hall issue and express your opinion to the President of the University. We need your help to save Fed Hall!

Alex Russell

vpas@mathsoc.uwaterloo.ca

deanQUESTIONS

We now return for more questions with our wonderful dean. If you have any questions you would like to ask, you can submit them at mathnews@student.math.uwaterloo.ca or to the **BLACK BOX** on the third floor of MC

mathNEWS: What do you think is the single thing about our faculty that mathies should be most proud of?

Dean of Mathematics: The real academic excellence of the students and faculty members! The standards for admission are very high, and we attract students from many parts of the planet - there are a lot of really smart people in this Faculty.

mathNEWS: What would you say is the top thing students should retain from their Waterloo studies once they've graduated and moved on?

Dean of Mathematics: The fact that they are Waterloo Mathies will stay with them always - it's quite amazing how that is recognized so widely as special. Also, the people that they have met here - faculty and staff members, and of course friends and classmates. Your love of math brought you together in first year, and your common experiences strengthened these friendships throughout your time at Waterloo. Stay in touch with each other for support throughout your careers, and share the moments that make your lives worthwhile. And please, stay in touch with us!

mathNEWS: If you had to choose any other colour (except pink) for our tie symbol, what would it be, and why?

Dean of Mathematics: I would choose green because that has always been my favourite colour (nothing to do with money). I always choose green whether it's clothes or decorating (but of course, since I have such bad taste, everyone in my family ignores my opinion if they ever let me go shopping with them). According to the Legend of the Pink Tie <http://www.math.uwaterloo.ca/navigation/About/pinktie.shtml> our founder favoured all kinds of outlandish ties with stripes and dots, and in keeping with this, I would look for a highly geometrical pattern in some lame shade of green.

mathNEWS: What tasks do you do on a daily basis?

Dean of Mathematics: My days are quite varied, some out of town, some doing mostly math, some in formal meetings all day. The main common element on a daily basis is that I talk to a lot of people, at all levels of the University, especially listening as carefully as I can. Whether I do what others suggest or not on any given issue, I hope that they feel that they have been heard, and that their viewpoint has been treated seriously.

mathNEWS: How has the relationship between the faculty and the student government changed since your student days?

Dean of Mathematics: As I recall it, there was less involvement of students in the University's decision making, and there was more distance between student government and the administration - but I wasn't involved in student government, so had no direct experience with this.

mathNEWS: What is your favourite drink?

Dean of Mathematics: My favourite drink is beer, and the brand doesn't matter that much as long as it is cold!

SOS SEZ: BURGERZ 4 DUMMIEZ.

- GO TO YOUR FAVOURITE BURGER JOINT
 - Which is WATERLOOSOS!
 - Go to www.waterloosos.com
- CHOOSE YOUR TOPPINGS
 - At WATERLOOSOS, you can have as many toppings as you want, for the same FREE price!
 - Select the courses that you are enrolled in this term
- EAT YOUR BURGER LIKE A BOSS
 - Munch on your delicious, juicy burger to a happier (which is healthier than being sad), healthier and better lifestyle!
 - Attend the exam-AIDs for your selected course to improve your UNDERSTANDING and increase your CONFIDENCE LEVEL for the course
- BE AWESOME
 - By consuming a burger, you have not only made an improvement in YOUR lifestyle, but also those around you - your favourite burger joint needs you to maintain its business!
 - Not only are you better prepared for your midterms, by attending an Exam-AID session, you are positively impacting the education system in Texcoco, Mexico, our destination for our next Outreach Trip.

Upcoming exam sessions:

- CO 250 - Saturday, June 11th, 4-6 pm in MC 2066
- MATH 237 - Saturday, June 11th, 4-6pm in DC 1351
- MATH 118 - Saturday, June 11th, 4-6 pm in DC 1350
- AMATH 250 - Saturday, June 18th, 7-9pm in MC 2065
- ECON 102 - Tuesday June 21th, 7-9pm in MC 2066
- MATH 239 - Sunday, June 26th, 7-9pm in MC 2065
- PSYCH 101 - Monday June 27th, 7-9pm in MC 2066

Shirley Jiang and Teresa Yeung
<http://waterloosos.com/>
sos.waterloo@gmail.com

MathFOC Sez

Orientation!!!!!!

Hey marvelous, awesometastic mathies!

We are jumping up and down with excitement about the Summer Leader Retreat on June 26th and you should too! Not just because it is going to be a great time but also because jumping up and down is lots of fun as well!

And, if you are feeling really excited, or are looking forward to another great day with leaders from across campus you should register for the O Conference on June 25th.

Spring recruitment closes June 13th and WE WANT YOU!! Get your application in at www.orientation.math.uwaterloo.ca/applications, we are looking forward to meeting you!

Banana Fanna Fo Fanna... What is in a name? Well, lots of things and you should help your team out by participating in the trivia contest on the leader blog.

<3 MathFOC 2011
 Gee, Heather and Jesse

Top 10 Unexpected Things You'd Find on an Anime Club's Inventory List

I was looking through the inventory list for the things that CTRL-A (Club That Really Likes Anime) owns, and on several occasions, thought, "wait, that doesn't belong...!"

Here are ten random things that CTRL-A owns:

1. Gigantic world map (bending)
2. 4x pizza cutters (2x lame plastic handles, 1x metal handle, 1x big one)
3. Campus pizza napkin
4. 5 lb dumbbell weight
5. Screw (just one)
6. Heating pad, complete with bag (looks like it still works)
7. A bunch of useless things including random wood pieces, broken cardboard boxes, random metal bars, paper...etc.
8. Strange Contraption
9. "My Little One" baby doll kit, makes a 22" Muslin Baby Doll Body
10. Fake plant

Why do we have these things? They're not even related to any of the events that we run. After some thorough analysis using complicated set theory and mathematics ... aha! Remember that giant mech that CTRL-A built some years ago? You know, the one that levelled Tokyo, and the info was somehow leaked to Misprint? All this stuff was probably left over from constructing that robot! Hmm, there may even be enough material to make another one...

June 10th and 11th seem like good dates to begin construction. If you'd like to witness (or even help with) the construction of an awesome destructive robot, come to MC 2065 between 4:30pm and 10:00pm on June 10th, or between 2:30pm and 9:00pm on June 11th.

A-LRTC

<http://www.ctrl-a.org>

Review of Pirates of the Carribean 4

The movie's not disappointing, but only because you know it'll suck. Pirates 4 was just one of those action films with pointless, bad action that they think is funny, but all the best jokes were really in the trailer. Besides, I can name fingers too. See, this is my index finger, and I call her Irma, and this one's my middle finger, but I call her Megan...

Wait, wait... what do you mean "Too late, we did all the Pirate reviews last issue, joke's over"? I thought we were friends, why am I always the last one to know anything?

Orange Crush

Map-Reduce in Five Minutes

tl;dr

If you are a coder, some day in the future you may need to solve problems that take too long if they're done by a single server. Thus, you will need to split your task such that it can be processed by multiple computers (often called {distributed,cloud,cluster,grid} computing). One paradigm used for this purpose is known as map-reduce.

Consider this simplified example: Given twenty people and a large bag containing some number of jellybeans, determine the number of jellybeans initially in the bag.

1. If the number of jellybeans is small, it is probably fastest to have one person count them all. Do that, return the result.
2. Otherwise, the number is not small. Have one person roughly divide the jellybeans amongst all twenty people. (This is the "map".)
3. Each person counts their set of jellybeans and sends their result to a designated person. The designated person sums each person's count of jellybeans to generate a grand total. (This is "reduce".)
4. Profit!

Thoughts:

- When a set gets really large, just counting things can take a long time.
- Dividing the jellybeans almost evenly amongst each person is good.
- Dividing the jellybeans roughly proportional to the speed at which every person counts is better.
- Spending too long to divide the jellybeans is bad.
- This can be extended to count the number of jellybeans of each flavour — just set each person to receive all counts for given flavours and produce totals for their assigned flavours.
- Bertie Botts' Every flavour beans provide interesting results, be sure to contact your local wizarding authority before attempting anything with them.

!able

Study = Fail

Hi everybody! Have you ever failed on anything, but weren't able to explain it? Maybe you were studying too hard. But weep no more, my friend. You will now be able to prove to your friends why studying is equivalent to failing!

We begin with two simple premises, and derive the equations.

- [1]: Study = No Fail
- [2]: No Study = Fail
- [1] + [2]: Study + No Study = Fail + No Fail
- (1 + No) Study = (1 + No) Fail
- Study = Fail

Funny... By multiplying "No" on both sides, we have "No Study = No Fail". The secret to getting a university degree is revealed to us! (If only life was this easy...)

Au revoir, fellow readers!

denis1080

In Other News

No News is Good News. Other News is OK too.

In campus news, some guy was charged with mischief, personation and criminal harassment after hanging those offensive sexist posters on campus during last term's FEDS elections. This reporter, for one, is very glad that people who post things that promote hatred towards certain groups are being prosecuted to the full extent of the law. Seriously. As for the joke part, Marie Curie did not respond by saying "nuke the bastard".

In Waterloo news, a FEDS VP puts in a call for students to get involved in the ongoing Waterloo public transit debate, which might see the construction of a new light rail and will certainly affect UW students. Students from Toronto gave the advice, "You know the TTC? Do the opposite."

In national news, a Senate page was fired after interrupting the Speech from the Throne by holding up a stop sign saying 'Stop Harper'. In other words, a 21-year-old girl decided to act like a 5-year-old because she didn't get what she wanted. Experts suspect that part of the reason she was fired included the fact that her homemade sign did not include a French translation.

In international news, a large outbreak of a dangerous strain of E-Coli is ongoing in Europe. Michael Bay is already attached as director for the movie 'attack of the German cucumbers'.

In pet news, a Toronto man was arrested after beating up a racoon. In his defense, the man says he thought the racoon was a burglar because he wore a black mask and had black-and-white stripes. Just like the Hamburglar.

In sports news, Winnipeg is getting an NHL team. Toronto fans are upset that now there's going to be a new team that's better than the Leafs.

In living and health news, the World Health Organization releases findings that cellphones are linked to an increased risk of brain cancer. Which explains why cellphone commercials are getting dumber by the month. I personally like the one where the parrot presses a button to get 2 lady parrots. That's not sexist at all.

In technology news, the E3 Expo, one of the world's largest video game trade show, was held this week in LA, and new and exciting games and systems were announced. A sizeable portion of UW students are spending more times watching videos and checking out gaming news than studying for their midterms this week.

In other news, my roommates threw a giant party with lots of alcohol and some Laurier girls last weekend. I was not invited. Which was awkward because I was just a wall away. The Orange News Team would like to advise UW students not to be friendlier to your roommate, because it might pay off.

That's all for this edition of In Other News. For news suggestions, comments, or to invite me to cool parties, contact us at orange.crush.uw@gmail.com. Thank you, and good news.

Orange Crush

A public proclamation

A good egg, if you will

Josh Shabtai is an OK guy. And you can quote me on that.

The ghost of inkEd, long forgotten

Because I Can!

May you always have an interesting life!

The more I think about this column, the more I realize that despite what I present to other people, my life has not been that interesting. I sit down to write this and think back on things that I have done that have been fun and unusual, but increasingly I am drawing blanks. To that end, I am venturing into the unknown in my suggestions! And perhaps I should try these myself too. So, without further ado: BECAUSE I CAN!

- Join a LARPing group. This is very good for getting weird looks from people, and you can learn useful skills in the process, like swordfighting. You may be surprised how often swordfighting is useful in the modern world. Bonus points if you actually learn new skills for this.
- Make up a conspiracy theory. Search for any tiny thing that would support your view, and studiously ignore things that do not. Then explain to a (preferably gullible) friend about how you have discovered this massive conspiracy. Bonus points if you manage to make them think twice about it.
- Walk around without a shirt on. Both women and men are allowed to roam topless, and it is perfect weather right now to do it. It is excellent for staying cooler, and for getting a tan. If you are of the female persuasion, you will get plenty of looks for this. Bonus points if you do this in the winter.
- Dye your hair into strange colours. In general, hair is a large part of how you recognize other people, so dying and/or cutting it will result in people needing to give you second looks. Bonus points if it is seasonal (eg. Red and white for Canada Day).
- Write something so bad that it is rejected from *mathNEWS*. This is a feat to behold, as the editorial standards are often remarkably low. Witnesses to the creepy articles of two terms ago can attest to this. So, your mission is to write something that is not accepted. Bonus points if it is horribly offensive but hidden enough it is accepted.
- Learn how to do a backflip. Surprisingly, it requires relatively little strength to do, as much a matter of technique as anything else. It mostly requires several hours spent in a gymnastic gym with a bit of help. Bonus points if you learn front flips at the same time.

MeaninglessQuips

N Things to Find in *mathNEWS* Filler

Will you find Waldo here? Maaaaaybe...

- An article that would've been written by a writer if the midterms hadn't eaten them
- The *mathNEWS* beaver reminding you to study for YOUR upcoming midterms
- Ninjas (they still have yet to be found)
- Imprint article parodies
- Filler, filler, filler, more filler and even more recursive filler!

waldo@<3.LE-GASP.ca

Rainbow Mathies 10

Internalized Homophobia 102

Hello again, members of the union of the set of Mathies and the set of Rainbow Mathies readers. (If you are not in this union, don't worry, I still love you. Technically, I'm not in it either. Its a good thing, we don't have to pay dues.) To all of you disappointed by the horrible length and quality of last issue's article, I apologize. My only excuse is the holiday Monday moving production night, and midterms. I want to start by giving a nod to Imprint for their paper released that week. Of all the things I could say about the paper... *cough*... it has always been a consistant source of reasonably queer-positive content on campus. This was especially true for last week, with three separate articles positively and responsibly talking about three fairly contentious issues (sexual orientation in sports, sexuality in music, and society's obsession with gender). Hats off to them. Anyway, this article is going to contain most of the info that last issue's was supposed to, namely, who internalized homophobia affects and how it affects them. Part 3 of the series will look at how to recognize and change the habits formed by our socialization. It's going to be a long one, so lets get started.

The effects of internalized homophobia on:

1. **Queer individuals:** This group is the most directly and most severely affected by socialized, anti-queer ideals. Let me guess, you're thinking "no duh." Of course, it's easy to see how the group is directly affected. There are some more subtle ways it can play a role in our lives. One of the main ways is intrapersonally. One of the biggest challenges a queer person has when coming in terms with their identity is figuring out how they're going to handle their own socialized values. I know that, as someone who grew up as a born again pentecostal, one of my biggest issues as I was learning I was gay was resolving the conflict between my religion (and the values they instilled in me) and my sexuality. Sometimes these values, despite being harmful, never get resolved and follow people through their lives. For example, consider the idea that homosexual men are more feminine than heterosexual men. This value is socialized through multiple means and everyone in our society has wrestled with it in some way or another; some have rejected it, but others accept it and it remains a part of their respective life. This can materialize itself in a gay man's life in many ways, be it by overvaluing their own masculinity or having unrealistic expectations of their partner's gendered roles or standards.

2. **Allies:** Dealing with internalized homophobia puts Allies in a strange place. Presumably, these supportive people don't agree with most of the ideas, but at the same time they grew up in an environment where they are normal and accepted. Unlike overt homophobia, which clearly socially acceptable to openly challenge, it can be difficult or weird to make your opinions known when the negative ideals are shared by most of the people you interact with and are found everywhere in the media. This kind of environment can be very difficult for allies to navigate, especially when it comes to choosing between being socially isolated or ignoring what they believe to be right.

3. **Families and institutions:** Families are often established around the beliefs and values they are founded on. Often times, they are small microcosms of the communities they most strongly interact with. Even if these families don't specifically or directly oppose varying sexualities, they may still support heterosexuality in more subtle ways. This concept extends to most community-based institutions, like schools. Often times, these institutions are even more subject to this phenomenon since they are founded around multiple families (and therefore are much less isolated and needs to cater to the common ground) and also needs to respond to the higher authorities which often help perpetuate these homophobic ideals, like the government. For an example, google Tennessee's "Don't Say Gay" legislation (I'll be talking about it at length in a future issue).

There are of course more people affected by internalized homophobia, but these are the big three and most people are somehow negatively affected in one of these qualities. I won't lie, it can be really hard to handle these kinds of attitudes, and quite a bit of pain is created as a result. As always, if you have any commentary, questions, concerns about the series or you'd like or just someone to talk with, you can email me at dtaleman@uwaterloo.ca. If you are queer identified, and are looking for someone to talk to or for supportive allies, there are always resources available to you. You can learn more about GLOW and its offerings, including a phone line at www.knowyourglow.ca. Counseling Services is always available to you; their offices are open 8:30-8MTTh and 8:30-4:30WF, located in Needles Hall across from Student Awards and Financial Aid. If you need support and assistance immediately, you can call the Waterloo Crisis Center at 519-745-1166. If you'd feel more comfortable speaking with someone from a queer specific service, please contact the GLBT Youthline at 1-800-268-9688.

Join me next issue for Internalized Homophobia 103.

(define this (not cool))

Why you should probably not make party invitations on Facebook

Other than the obvious

On June 5, more than 1500 people showed up to a German girl's 16-year-old party because she 'forgot' to set privacy settings on Facebook. It was so crowded that she ditched her own party and hung out at her grandparents' place until they all left.

To be honest, it seems more like a case of someone who never had enough attention before getting "way too much more attention" than they expected, and, fearing that they may become popular, ran away from their (mostly) friendly stranger guests. But what would I know about parties? The only party I've been in has had 6 characters, all of which I've known since I was first found in Viridian Forest...

Pichaku

FIP to be Square: Swindling your fellow league mates

Or, at least, make a trade where you don't lose!

The allure of fantasy sports, for me, lie in the anticipation and uncertainty of numbers and value. Fantasy leagues, in general, are not a group of competing islands. Quite often, you must cooperate with the other owners to further your team in the standings. Snapping up the next available closer, after all, can only get you so far, until you realize you've built your pitching on middling closers and nothing else. You've drafted well and made some good pickups, but sometimes you just end up with a logjam that holds your team back. It's like picking up Eric Hosmer when you already own Joey Votto and Carlos Pena. An embarrassment of riches at the 1B position for most leagues, to be sure.

That brings us to the third way of improving your team that every manager should have some experience with: trading. On paper, trading is easy: I have a player you want, you have a player I want, and wham, we make the deal. In reality, it's never so simple because each owner will be trying to win their deal by maximizing the value they acquire while minimizing the value they give up.

One common misconception in trading value is this: When you're trading a player, unless the league is set up to, you're not trading for a player's current performance. You should be trading for what the player will do for your team down the road. This conversation came up the other day, when someone mentioned that he acquired **Alex Ogando** as a throw-in in a deal. Ogando, for those of you who haven't been following, has been outstanding this season to the tune of 6 wins, 2.20 ERA, 0.88 WHIP and and 53Ks, all in 73IP.

Another person in the conversation remarked that Ogando is clearly a sell-high candidate, and that one should flip him immediately for something of value. The argument immediately degenerated into what exactly is Ogando's value and why he can't just

keep it up.

The answer to the second part is simple: A pitcher who has only ever made three minor starts has no track record to fall back on. His **BABIP** is a miniscule .208, and his strand rate (percentage of batters who get on base against him but don't score) is an astronomical 86.2%. Since the major league average for the two stats usually fall to .300 and 70%, clearly he is due for a large regression, barring a huge dose of luck.

Obviously, anyone who has played fantasy sports for awhile knows it's a rule never to buy into these hot start pitchers, so chances are if you owned Ogando, you'd never be able to get the value of a 2.2 ERA, 0.9 WHIP player in a fair exchange. That being said, you can probably swing a trade where you can trade him as a 3.5 ERA player with a decent K/9 rate and wins upside..

But why, you ask, would you trade Ogando for someone so low? The reason is this: You are selling him at a level that you don't expect him to sustain. You see, for Ogando to drop from his 2.2 ERA to a 3.5 ERA by the end of the year, he would have to give up a substantial amount of runs going ahead. Projecting a 185IP limit for him, Ogando will have to pitch at a 4.3 ERA level going forward until the end of the year for it to settle at 3.5ERA.

Whereas your opponent will be buying a 3.5 ERA player, you are really selling a pitcher with a 4.3 ERA going forward, and the profit margin is clear. That, my friends, is how you swing a sell-high trade.

The caveat, in the end, is that projections are just that: projections. Maybe Ogando really erupts into an ace-like pitcher for this year before dropping off the year after, but if I was a betting man, I'd still be making that kind of trade every single time.

Baseball Fanatic Panda

MUDpit: WLURB

The trials of editorship

A young student stands in his dormroom. It just so happens that today, the 20th of June is *mathNEWS* production night. Though it was three terms ago he was inducted into *mathNEWS*, it is only today he will be given an editor name! What will the name of this new editor be?

> argED
Insert an argument, smartass!

> AchieVED
You are now known as ACHIEVED. You have written a couple of ARTICLES in the past. You are in the MAC LAB in the SECOND FLOOR of the MC. You have a set of MINIONS ready to do your bidding. What do you do?

> Write an ARTICLE on IDIOTS.
Your fellow EDITORS yell at you until you stop. The threat of a LAWSUIT looming made you reconsider.

> Order PIZZA.
You spend ten minutes deciding TOPPINGS. There is a pizza with ANCHOVIES, SUNDRIED TOMATOES, and BLUE CHEESE. You feel as if these toppings have been pulled out of a hat.

> Publish issue.
You have published an ARTICLE that caused CONTROVERSY. You have angered a member of SMALL MINOR GROUP, when the article was written by a member of SMALL MINOR GROUP. Upon being called to the DEAN OF MATHEMATICS' office, the complaint is withdrawn. While there, the DEAN gives you a mission: You are to find a new PRODUCTION SYSTEM not made by IAN GOLBERG. This is an impossible task. You fall into despair.

> Hop on his desk and lay an egg.
The egg hatches into a new PRODUCTION SYSTEM. Everyone is shocked. You are given a TROPHY.

candu

Real Time RTS

Months of enjoyment

Disclaimer: The base idea for this isn't mine. I found it online (particularly on reddit). However the extensions of the idea that is presented below are my own as is the research.

The basic concept

Step 1. You will need some things. The first thing is an ant colony (lets call this your base). To save yourself time and effort I would suggest a gel colony since this takes care of making sure that their "resources" are equivalent. The second suggestion would be to make sure that the tank you buy is modular. This is very important since you will want multiple ways of entering and leaving the "base".

Step 2. Now that each person has a base so next they need an army right? WRONG! Next we need to set up the map. This is why we got modular bases (and if you didn't, don't fret as there are ways around this) so you will want to go pick up some tubing - the more the better. *WARNING: more tubing means more space, so you might want to figure out where you want to build your battlefield before doing this.* What you want to do is to make the tubing intricate: make it run around objects, up the walls or lamps or even through objects. The more scenic the route the better. Once this is all set up you can marvel at the map you have created for your little army to demolish all opposition!

Step 3. Now it's time to get the armies in there. If you want to go hardcore with this, start with 1 queen and perhaps about 10-20 ants. If you want to get this going quickly start with 1 queen and about 50-100 ants. The important thing to note is that each player must get a different species of ant. However, make sure that all the armies are "balanced". That means no soldier ants, or anything that could kill anything larger than it in a one on one battle. So once each of the armies have been chosen everyone picks a base and to drop thier ant colony in.

Stages of the game

Obviously this game will take slightly longer than 40-80 minutes regular RTS' take to play out. In our case the whole game can take approximaely 8-10 weeks. and will be split up into three stages of battle.

1. The first phase will last about 3-4 weeks and is the base building stage. At this point your army will begin building thier bases with tunnels and rooms. If you feel partiularly nerdy you can start naming each of these rooms to be your "observatory", "war room" or "turret".
2. The second phase will be the next 12 weeks where your armies begin scouting. The ants should have reached the tubes by now and will have begun exploring down them, sending out small expedition parties down your intricate little mazes. This is also where having two or three exits per base becomes interesting since there are many ways to get to every base. Eventually this leads us to the third and most awesome phase of our game ...

3. **The War Phase!** Ants have this tendency that upon coming into contact with another species of ant to go to war. So once they find another ant colony they will begin to plan and attack it. From small skirmishes to massive assults, this part is definately the most entertaining part of the game as every day is a new adventure with battle lines being pushed almost hourly. With buildings and bases won and lost in the course of an afternoon. At the end one army will remain victorious while the others will be wiped out.

Costs and Worries

Let's look at this from a cost method. First of all a modular ant habitat is about \$20-30. If you want the cheap cost option feel free to take a large plastic (recommended) or glass container and filling it up with gel or sand. If you do use sand there might be an issue that you need to have food for them (but this is just honey and similar things). As for ants this gets a bit more complicated.

First you must find somewhere that sells not just ants but a queen. Ants are stupid and won't actually do much without a queen and you really only need about 5 workers if you have one queen. Additionally a queen will live for approximately 15 years so if you can rescue the queen before the carnage ensues, you can play more than one battle for your cash. Looking online, the cost of a colony seems to be anywhere between \$20 and \$40. If however you feel a bit more adventurous head out into a field with a shovel and dig up some ants (it really shouldn't be that hard, they are all over the place). Look for the queen who should be quite a bit larger than the other ants and capture her with a small scoop and go to town with it.

Well this seems to be long enough (the editors get mad at me if I make my articles too long) so I will describe some of the other additions to make your real life RTS so much more fun next issue!

Skitter along my pretties
The Ant Keeper

Challenge accepted

Iron Warrior, we have read your article on bacon cupcakes with maple frosting. We know you're just trying to outdo us. We know you feel threatened by the absolutely tasty goose recipe we published in issue 1. We feel the same way about bacon cupcakes. Rest assured that if we ever get around to it, we'll publish an even better recipe. Until then...

Deep Fried Bacon Cupcakes

For this recipe you will need the bacon cupcake made as per spec described in the most recent Iron Warrior issue. Follow this by getting a deep fat fryer filled with boiling oil, and a set of tongs. With the tongs, gingerly pick up the bacon cupcake and slowly dip it into the fryer, muffin-head first (it needs to be crunchier, after all). Wait 30 seconds, and then lift the cupcake out.

Please note that *mathNEWS* does not accept any responsibility over health conditions gained from such an attempt.

The Editors

Surviving Midterms

The things that have tripped me up in the past

It's midterm season. Therefore, it's a good idea to refresh yourself on good ideas to actually retain information. Why am I writing this? I figured I'd write it because I'm an expert at being "bad at studying" so I've made a number of mistakes in the meantime. I'm sure you've heard from good studyers, now hear from the bad ones! So without further ado, here is my list of previously made blunders in tips to do form:

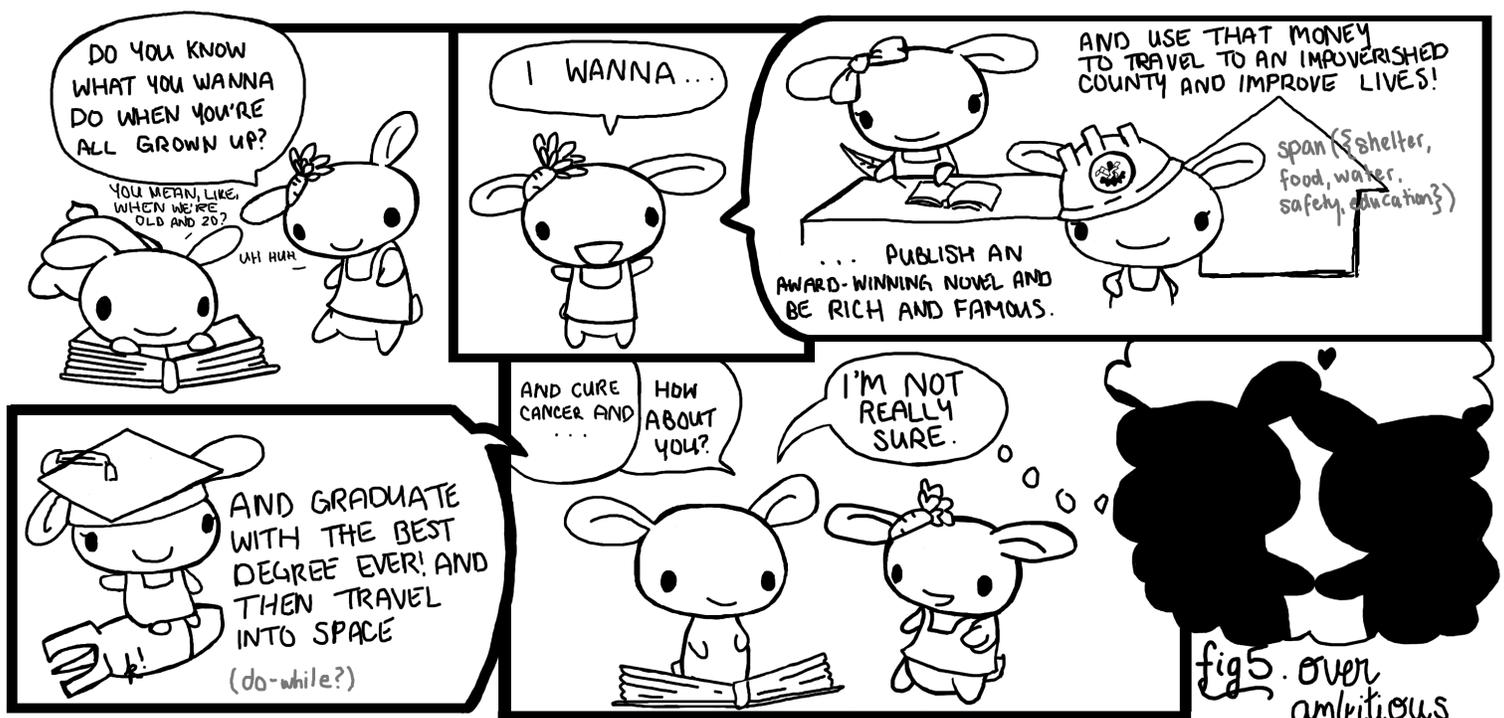
- **Take your own notes:** I always do much better when I take my own notes for classes, or rewriting them while studying. Even in cases where the class notes are posted online, or copies of the course notes are sold (or even if you have an awesome friend who takes way better notes than you and lets you borrow them), it's still valuable to take notes. Why? Taking notes forces you to actually think about the material. It doesn't really matter how you take notes. You can write them out, or if you hate writing by hand you can use text files or online note solutions like Leafnotes (leafnotes.ca for the curious). I usually go with writing down my notes because I like pen and paper, but a lot of peers like the electronic methods. The important part is that by making your own notes you'll be forced to actually figure out what is relevant to write and the thought process will stick in your memory a lot more than passive reading through.
- **Short, Constant Study Sessions:** You've heard it a thousand times. Cramming is bad. It's easy, and therefore we all like to do it because it gets us through the midterm. The whole point of the midterm is to tell us what we need to brush up on, so you want to go into the midterm and only get marks for what you actually will retain to the exam. This is what constant studying is for. You'll have regular

sleep to actually process the information and retain it for more than the midterm (well, most of it. hopefully). Either way, just go to the effort of studying for your stuff in advance. You'll feel less stressed (which is also better for studying) and you'll retain it all better.

- **Do Practice Questions:** The number of times I have entered into an exam situation thinking I knew the material well enough and quickly been disabused of the notion is far too high for comfort. Just reading how to do questions makes them seem a lot easier than they actually are. All those practice questions that Profs mention that you never have any time to do during the rest of the term? Do them while studying. They'll show whether or not you actually make the intuitive leaps that reading the answers allow without any thought at all.
- **Take breaks:** In the end, studying shouldn't drive you crazy. It should be a habit. If you lose your life to studying it won't be very habit forming, so don't let it get in the way of things. 8 hours straight of studying won't help you much more than a couple hours thanks to how little of it you'll retain, and you'll probably never want to look at a book again afterwards. Just be reasonable and avoid Reddit and Minecraft and Starcraft II and every other distraction for an hour or two in a row regularly and it'll probably help.

If these seemed obvious, you probably already know how to study and I sound like a broken record. Hopefully though, for at least some people like me who suck at studying, it will remind them of the things they tend to forget when they've been off on co-op for a term. Now I should really follow these tips so I don't do horribly on all my midterms. Huzzah!

I suck at studying



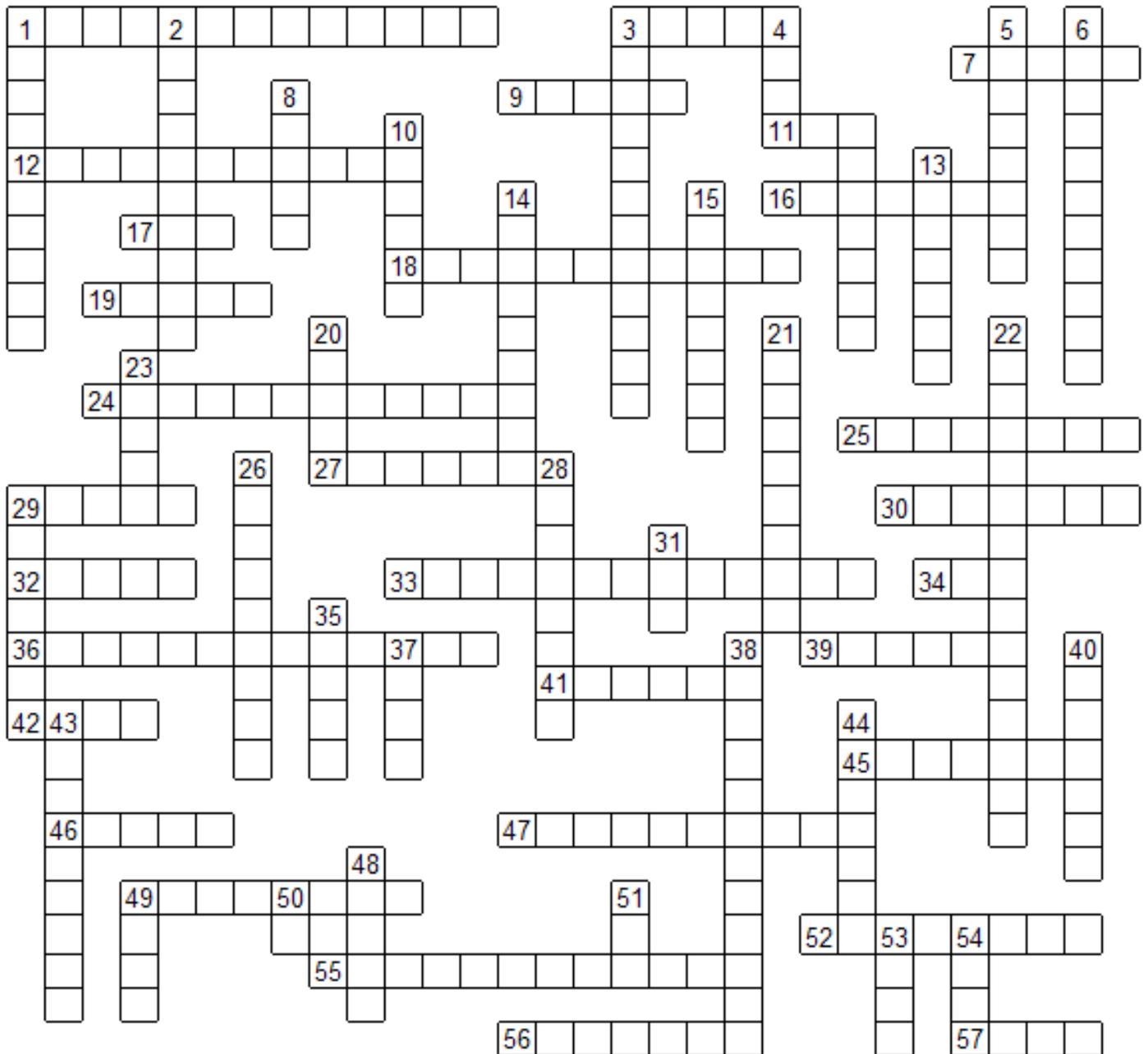
Anime Crossword

Across

Here we have a giant crossword which has only has anime (or manga which has been adapted into anime) as its entries, but here's the catch: the titles are to be entered in Japanese katakana. All titles usually written in English are to be entered as the official Japanese pronunciation of the title, kanji to be spelt out according to its pronunciation, all long vowels are to be designated with the “-” character and is not interchangeable with “ウ” unless the title is written with “ウ”. Ignore any punctuation in the title. Treat characters with a dakuten the same as those without a dakuten for the purpose of crossing with other entries. Do not use subtitles of the anime. When in doubt, use the Wikipedia reading in Japanese and a kana table to help. Happy filling, and I would be bloody surprised if anyone sends any entries to this ugly crossword.

I shouldn't spend so much time on crap like this,
Zethar

1. This series is well known for deconstruction for the giant mecha genre and angst of its protagonists
3. This is based off an old Chinese classic, it also contains a dragon who transforms into a jeep
7. A clawed man killed the protagonist's bride and he is looking for that man.
9. It's a wonder that people in modern Tokyo doesn't bat an eye when someone with claws, pointed teeth and dog ears run around.
11. A family takes on the eponymous name of the series and steals priceless treasures.
12. A crystal keeps a secret city in the sky
16. This originally was a game, and was adapted into two separate manga series before an anime adaptation was made.
17. A Japanese immigrant moves to terraformed Mars and aspires to be a gondolier
18. Equivalent Exchange



19. The story starts with a vampire converting a police officer.
24. A part of the protagonist's name gets stolen as a part of the story.
25. Demonic horns get passed to an apostle and the demon joins a demon fighting organization
27. The protagonist lives next to forest spirits
29. Two ninja factions vie for dominance after Tokugawa Ieyatsu steps down in a bloodbath
30. Diminutive frog invaders attempt to conquer Earth repeatedly.
32. Earth is populated by hidden aliens and an alien prince crashes on the planet and loses his memory
33. The series begins with the Bloody Valentine War between the normals and coordinators
34. The subtitle is "Diamond Dust Drops"
36. This series is well known for reducing galaxies to weapons
39. To gain entry to heaven, she must kill 108 others in her situation
40. A flower girl seer meets a prosthetic prizefighter in an underground dystopian city
42. We bring letters from the dead
45. The eponymous mecha was formed by a freak fusion involving a wormhole.
46. In a Faustian contract, an orphan makes a deal with a demon asking for vengeance.
47. A dating sim "god" gets asked to capture the hearts of real women
49. A top assassin from an organization leaves because of a girl and a jealous colleague kills the girl
52. The protagonist manages to steal time, immortality and gets arrested into a maximum security prison to steal something in there
55. This series is herald as being the first economic based manga and subsequently anime
56. On her 15th birthday, the protagonist is cast into an abyss and goes down the rabbit hole
57. Japanese Crimson
10. The film starts with the protagonist dying of starvation and his sister's ashes throw away. You then later learn that she died sucking on marbles as she wastes away.
13. The only show which a match lasts 10 episodes
14. The spawn of Satan decided to defect and spend his life exorcising demons from hell.
15. Purgatory high school keeps you here so long as your dreams are not met.
20. This series is well known for its Xanatos Speed Chess when dealing with the ideals of one person and how power corrupts absolutely.
21. One of the first things which happens is that the protagonist is cursed with old age by a wicked witch who wants a different magician's heart for herself
22. This anime deals with transhuman ideas between reality and the interconnected virtual world and how one deals with having absolute power over this system
23. Devil Fruit. Enough said
26. A secret military organization sends a secret agent to protect a mark, except said agent is incompetent at mundane tasks. Black technology is involved
28. A doll is sent to a high school student and was forced to play the "Alice Game"
29. The group investigates mutated human monsters with glowing brains in a criminal ridden Japan
31. People die and are resurrected by this black sphere to hunt aliens or they die permanently again
35. Silver eyed witches kill monsters for a hefty fee
37. The Seven Moons kill the protagonist's brother and he teams up with a friend to discover the root of the mystery
38. This is well known for its infamous Endless Eight. [sic]
40. A family is cursed with changing to a zodiac animal when touched by a member of the opposite sex. There's also a cat.
43. A cyborg police force tracks down the Laughing Man
44. The Death Weapon Meister Academy eventually takes down Arachnophobia
48. A group of gang members manage to get a hold of an immortality elixir. Chaos ensues.
49. It's not just NaClO.
50. The protagonist goes through a portal to a place where shard casters fight endlessly.
51. The protagonist visits this city seven years ago, and now has forgotten much about it now that he's returned; there are a lot of loose ends to tie.
53. The title of this show is based off the two main characters and the animals they represent.
54. The protagonist has eyes which sees spirits, and to rid himself of this impediment, he works at a store which grants wishes.

Down

1. The protagonist sees lines of death everywhere, until a mysterious sorcerer gives him glasses to block them
2. A envelope sequesters Earth and disrupts time and space, and Earth is overrun by organic machines who want to exterminate humans
3. Notorious for telling the emotional not to watch the last few episodes because it is depressing
4. The sky people come and defeat the samurai in a war, who then forbid carrying swords in public. The anime deals with an eccentric samurai in this setting.
5. The overbearing arc of the story deals with a child who learns of his father and his occupation and goes out to find him. Long runner, is on hiatus.
6. An island is hidden behind a cloak to prevent giant aliens and the rest of civilization to exploit its giant mecha industry. One day the aliens stumble over it.
8. There's a headless motorcycle rider in Tokyo, surely that gives the protagonist an interesting life.

STATS 230 Limerick

An artistic tribute to the fallen

There was once a math midterm for statistics,
That resulted in some awful logistics.
The average was forty-nine
The TA's couldn't solve each line
Somebody reassign that prof or fix it.

gridCOMMENTS

A witch! A witch! Burn her!

Hello, *gridWORD* readers. As the more astute among you may have noticed, last issue's answers did not match the grid from the issue before it, and last issue's grid did not match its clues. I regret to inform you that this deplorable act of sabotage was the work of none other than the *mathNEWS* editors. You must rally and show them that this is the sort of attack up with which we will not put! If you happen upon an editor, lynch them!

"Ah", you may ask, "but how will I know who is an editor?" The answer is actually remarkably simple: it was proven in by Bedevere, Pendragon, et al. in [1] that *mathNEWS* editors, like all beings of pure evil (especially witches), are made of wood and hence weigh the same as a duck. Thus if you happen upon someone who weighs the same as a duck, you must burn them for being an editor.

Congratulations to Benson Lung, who through extraordinary effort, managed to submit an entirely correct solution despite the lack of a grid. To Benson I award this issue's prize, as well as the unclaimed prize from last issue: one for constructing the

grid correctly, and one for correctly filling in the answers. His answer to the *gridQUESTION* "What *gridQUESTION* should never be asked if I want to preserve my sanity?" was "What would you do to me for a Klondike bar?"

For everyone else, appearing this week is the grid that was supposed to appear in last issue, this time with cryptic clues in addition to quick clues. Benson, I'm sorry, but you are not eligible to win the prize for the quick clues this issue.

Since I have no sanity which is worth preserving, this week's *gridQUESTION* is "What would you do to me for a Klondike bar?" Please submit your completed (or incompleted) grid and answer to the *gridQUESTION* to the blackBOX on the third floor.

—perki

References

- [1]. Gilliam, Terry and Terry Jones, dir. *Monty Python and the Holy Grail*. Python (Monty) Pictures, 1975.

profQUOTES

Quoting Profs since 1985

If you can do it, put it in writing and email it to me. Then step in front of a truck. I'll publish it and I'll be famous... I never said that

Furino, CO480

What, none of you have committed any robberies or other crimes? You're boring.

Shai, CS245

If someone comes in and says, 'folders', I say, 'noob noob noob'

Buhr (substitute), CS246

So I treated myself. I went to the kids section in Zellers and bought myself some sidewalk chalk. This should last me... well, probably the rest of my life since I bought quite a bit

Anderson, CS246

Just for you guys, I halved the amount of coding you need to do for the project

Lou, CS247

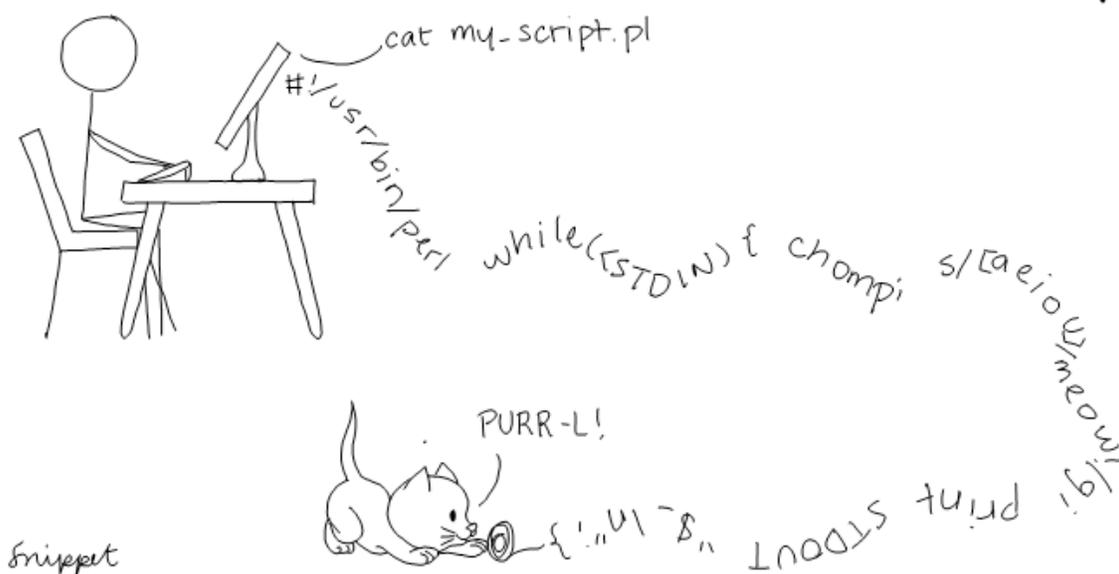
Over the last few weeks, you've been learning to count. And for the rest of the term, you'll be learning to connect the dots and colour

Broadbent, MATH239

Every math student must have a favorite function. That's the rule. When you go grad school, you should get a function! (After two students asked questions.) Use a sample of 2 to estimate the rest of you. This is statistics in action.

Metzger, STAT340

SCRIPT KITTY



Cryptic Clues

Lying

1. Stag running west chases ocean's belief system (5)
4. Sprite mixes port side without afternoon drink (3)
6. Filters even as fief, it is (5)
9. Star Wars villain scrambles to fight without winged mammal or Scottish flower (7)
10. Incoming in before a great leap (7)
11. Westerly wind-sheltered area for electric fish (3)
13. Devils steal pirates cry from companions (6)
16. Introduce air into left zone before beginning test (6)
19. Fires left on the fifth of November (5)
20. Iron oxide number ninety-nine is simple (6)
21. Sword on Sun God's dock (6)
22. Happy not to begin to relate (5)
23. Passionate in lieu of witness who will offer video evidence (6)
24. Enquire headlessly before two limits of nutmeg descending mountains (6)
25. Remove from residence in field of formidable victory (5)
27. Bread fungi vote in favour of short holy people (6)
30. Beams of fire remnants without beginning to ship ends (6)
33. Fitting in last topographic map to bring peace, finally (3)
35. Scene containing one hundred and one branches of knowledge (7)
36. Cause damage, only without parcel tailing mellifluousness (7)
38. Sound swiftly or never induce chanting, initially (5)
39. Irritate a horse (3)
40. Fire starter begins salvaging urban green-space (5)

Falling

1. Lion relative initials contract, accepts terms (3)
2. French summer contains lithium aristocracy (5)
3. Spoiled point above heartless end (5)
4. Top-grade reward for sword? (4)
5. Weapon for failing above texas tea (4)
6. Mixed up beside each other without feline beheaded by slashing sword (5)
7. Animal life, first letter, below goat man (5)
8. Windows precursor returns to grass (3)
12. Flow begins enlisting blackberry (3)
13. Lightning bug places ecstasy to soar after pine tree (7)
14. Original citizens tan up bee colonies without hooded head (7)
15. Withdraws from software engineering kernels, I hear (7)
16. Halts northern Sun God before periods of sleep (7)
17. A fake scrambled pearl encased, I see (7)
18. Arouses ire north north-east of center of surreal drunken sage (7)
26. Demon is lame without glockenspiel finale (3)
28. A detailed innocent look up to deal with birds (5)
29. Gayment in response to a disgusting song? (5)
31. Stringed instruments muddled out of tune (5)
32. Plant-life marketplaces containing heart of tulip (5)
33. A long period of time begins an endless oboe nocturne (4)
34. Head to embrace a ciminal (4)
35. Initial signal of suffering! (3)
37. Construct hastily a kite containing Tibetan ox (3)

Quick Clues

Across

1. Long narrow inlet
4. Little red book author
6. Command
9. Sweetened fermented milk
10. Less aged
11. Bewitch
13. Fancy
16. Missive
19. Alpaca relative
20. Tiny
21. Conservatives
22. Brink
23. Places of sport
24. Portray
25. Unit of magnetic flux density
27. Uncommon
30. Thin, supple, graceful
33. Lubricate
35. Fire bird
36. Gave way
38. Symbol
39. Cancel, halt
40. Lock

Down

1. Doomed to die
2. Cathedral instrument
3. Discourage, dismay
4. Legend
5. Semiprecious agate
6. Musical study
7. Oblong steel block
8. Hill, rocky peak
12. Historical period
13. Gradual assimilation of knowledge
14. Apart, to pieces
15. Raise
16. Sideways
17. Despots
18. Orchestra conductor's platform
26. Alpine travel device
28. Extreme pain
29. Musical sea shell
31. Incompetent
32. Slink, edge
33. Bulls
34. North American wild cat
35. Hog
37. Insult

UW announces new policy

Resolves to clear transparency issue

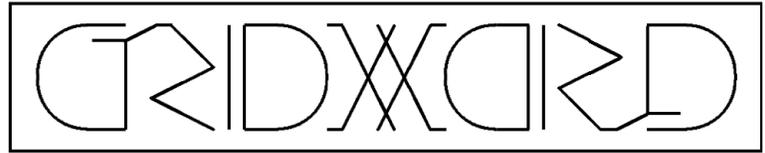
In the wake of the controversy of the University of Waterloo's recent announcement of retaking a Fed Hall after a series closed-door meetings starting as early as last year where discussions about it were given without student notice, the University has decided to be more open about their policy-making procedures.

Gord Georgeson, the puppet director of the UW student-administration relations, announced this morning that the University will drop all pretense of listening to FedS and will now openly claim whatever it wants, without student input.

"I personally think that this is a great step forward for the administration," Gord Georgeson said during an open Q&A after the announcement. "Students can rest reassured that the University will no longer be plotting behind their backs to find new and ingenious ways to take away their freedoms. Now, they can get updates as they happen on our new Twitter feed, ATCearUWKnowledgeToday. We'll be posting regularly with our announcements, so it's open for all to read."

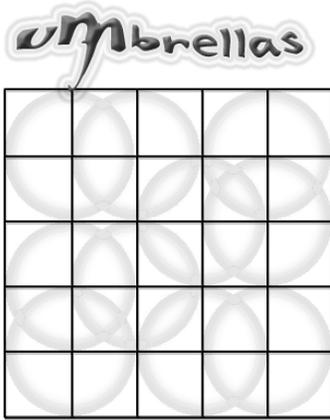
To finish off his presentation on a high note, Gord announced that the University is eyeing the Peter Russell Rock Garden in front of the MC, saying that the land could be easily converted into a corporate foosball dome, complete with leather recliners and a big-screen TV to watch other sporting events. Construction is expected to start as soon as the QNC is completed in 2050.

lbar



This Week's Grid

1		2		3		4		5		6		7		8
9								10						
13			14		15				16		17			18
20										21				
23											24			
27		28		29						30	31		32	
35										36				37
38								39					40	



Place the following 10 squares on the 10 circles so that the overlapping numbers match up.

38	65	27	00
45	38	08	49
07	54	72	95
54	97	80	59
90	55		
14	87		

Answers from previous grid

C	A	N	A	D	I	A	N		B	I	S	T	R	O		
R					U			A	O	H				V		
Y		U	N	D	E	R	G	R	A	D	U	A	T	E		
S		N					E	Y			T			R		
T	I	L			M	A	T	H	E	M	A	T	I	C	S	
A		A			I		R		A		L			I		
L		C	O	N	F	E	R	E	N	C	E			M		
L	Y	E			T		A		T		R		A	S	P	
O					S	Y	N	T	H	E	T	I	C	S	L	
G					E		E		R		M		C	I		
R	E	N	A	I	S	S	A	N	C	E			O	F	F	
A					B		P		A				T		Y	
P	O	L	I	O	M	Y	E	L	I	T	I	S			I	
H					R		A		L		E				N	
Y	O	N	D	E	R				K	A	Y	A	K	I	N	G

Puzzles courtesy of euri.ca

Drywall

"Listen up. Our client isn't picky, as long as each square has the right number of walls surrounding it. Sounds a little tricky, but we didn't get to be the #3 drywall outfit in town by being lazy."

Also:

- There's a wall around the outside
- They want exactly 14 rooms

2	2	3	3	2	2	2	1	2	3
2	2	1	1	1	1	2	1	1	2
3	1	0	0	0	0	1	1	1	2
3	1	0	0	0	0	1	2	1	2
2	1	0	0	0	0	1	3	3	3
2	1	0	0	0	0	1	2	2	2
2	2	1	1	1	1	2	2	1	1
3	4	2	1	1	2	4	2	2	2
3	3	2	1	1	2	2	1	3	3
3	3	3	2	2	2	1	2	3	3